decided, yet there seems to M. Levy sufficient evidence on which to found the following conclusions: 1st. Expectant treatment is not attended by serious inconvenience in simple intermittent fevers under proper hygienic conditions; it is to some extent indispensable in testing experimentally the substitutes for quinine. 2d. Part of the successful cases, ascribed to cinchonine as well as other febrifuges, are due to the well-known fact of the spontaneous decline of febrile attacks. Speedy cures, previous to the occurrence of an attack in hospital, and those of vernal fevers, belong to this category. 3d. The fevers of summer and autumn, although more obstinate than those of spring, present a certain proportion of spontaneous cures. Such were a part of those in the Piræus in September, 1854, cured by a single dose of 8 to 12 grains of sulphate of cinchonine; and probably the fever treated with apparent success, by means of salicine, at the hospital of Calvi, in Corsica, in 1835, were in reality spontaneous recoveries. 4th. If in malarious countries, such as Corsica, Algeria, the Piræus, and Varna, where the miasmatic effluvium is at the maximum, a large number of the fevers get well spontaneously, the proportion of such cases must be much more considerable in temperate climates, such as Paris and other towns of the interior of France, where the paludal influence is much less marked and often very weak. At the military hospital of Lille, the venerable Physician-in-Chief, M. de Chamberet, used to cure intermittent fevers with pure water, distributed to the soldiers in vials, labelled with *Protoxide of Hydrogen!* 5th. The outlay for sulphate of quinine may, in accordance with the preceding remarks, be considerably reduced both in civil hospitals and in the army; the sulphate of cinchonine will be sufficient in the treatment of most fevers which occur in spring and up till the beginning of June, and even in a certain number of cases in summer and autumn. In winter, when there are only relapses without any tendency to the malignant type, the same treatment will do, whether preceded or not by a dose of the sulphate of quinine, or mixed with a small quantity of the latter, as advised by the Council of Health for the army. 6th. No military physician has attempted the employment of cinchonine in the malignant fevers (fièvres pernicieuses); a reserve which is recommended by the results of experiments, and which ought to be imitated in civil practice. 7th. Another source of economy consists in a rational *dosing* of the drug; excessive quantities being used both in Africa and in France. Impartial observation has shown that, even in malarious countries, it is rarely necessary to raise the dose above 12 to 18 grains. 8th. Lastly, the expense for sulphate of quinine to remedy splenic engorgement is, in most cases, sheer waste. In recent cases, the treatment may be of service; but in tumours of the spleen of long standing, the quinine lavished with costly perseverance is found to produce no sensible modification of the enlargement. In conclusion, M. Levy refers to the fact, insisted on by the Council of Health of the army, that there is a singular contrast between the toxical energy of the cinchonine and its therapeutic insufficiency—a subject which deserves renewed research. In the administration of cinchona, the toxical and therapeutic effects of the cinchonine are combined with those of the quinine, and the sum of their actions forms the peculiar value of the cinchona. And if the sulphate of quinine is the resource of the physician in combating fevers, which resist the action of the sulphate of cinchonine, so also, then, are fevers which repel the sulphate of quinine, but yield to cinchona. In fevers which have frequently relapsed, and in those which have induced a cachectic condition of the system, it is the cinchona which deserves the preference.—*Edinb. Med. Journ.*, October, 1860, from *Bull. Gén. de Therap.*, May, 1860.

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7. *Mode of Action of Perchloride of Iron.*—At the Academy of Medicine, a lively discussion has been going on relative to the action of perchloride of iron as a therapeutic agent. M. Trousseau, at the meetings of May 29th and June 5th, entered at great length on the doctrines laid down in a paper on the subject by M. Devergie. Practitioners, according to this memoir, may be divided into those who explain the action of such remedies in the purely chemical effect produced by their introduction into the blood, and those who assert that vital action alone is concerned in the results thus produced—that a dynamic, and not a chemical, effect is exercised by them.

According to the theory of M. Burin Dubuisson, a small quantity of perchloride of iron is sufficient to thicken (épaissir) the blood so much as to retard or impede the capillary circulation. This action, however, is temporary, and must not be confounded with the regeneration of the blood accomplished by that agent. M. Dubuisson considers, with M. Mialhe, that the assimilation of iron for the formation of blood-globules takes place while the iron is in a state of peroxide, and not of protoxide; that ferruginous protoxides do not act upon the albumen; that they are absorbed; that they circulate in the blood, pass to the lungs, and are converted by the influence of the oxygen inspired into peroxides, and then exercise their influence on the blood. Persalts, however, by not requiring such preliminary transformations, act much more rapidly than protosalts do—the acid of such salts unites with the soda in the blood, and the peroxide with the albumen, forming an albuminous material at once taking part in the formation of blood-globules.

On the other hand, the partisans of the dynamic theory, while admitting the diminution of red globules in the blood during chlorosis, and their increase in quantity following the administration of iron, do not consider these facts as proving that this iron has been absorbed. They do not regard chlorosis as resulting from diminution in the quantity of iron contained in the blood. It would appear, from recent experiments, that, notwithstanding the paucity of blood-globules, the quantity of iron is not defective; and they therefore conclude that the favourable action exerted by ferruginous preparations is due to the influence they have in exciting the processes of digestion and nutrition—that is, on the digestive apparatus (MM. Trousseau and Pidoux). According to M. Meran, of Bordeaux, who has advanced certain hypotheses on this matter, the perchloride of iron acts directly on the capillary system by its tonic and stimulant powers—contracting the coats of these vessels, so as to prevent the escape of their contained fluid, and in this way arresting hemorrhage,

Looking at both these exclusive theories, M. Devergie considers neither of them to be well founded. However much the mere chemical action of such substances on the blood may seem to account for their effects, we cannot, says he, institute a comparison between the digestive or vascular system and the apparatus of a laboratory; and, on the other hand, the rapid appearance of ferruginous preparations in the blood, and the immediate effect it produces in hemorrhage, preclude the idea of its action being exclusively of a mere dynamic or exciting nature on the digestive or vascular organs. He rather considers that these preparations act in both ways; that is, by their entering at once into the blood and improving its quality, while at the same time they exert a beneficial effect on those organs on which they seem to have a stimulating influence—thus reconstituting the blood and improving the digestion simultaneously.

The two theories here attacked, and the hypothesis advanced in refutation of them, form a question involving the whole laws of therapeutics, and by its connections extending to the general action of all medicines. M. Trousseau has all along objected to the doctrine of such remedies as this acting exclusively by their chemical properties. At two consecutive meetings of the Academy of Medicine, he has accordingly discussed the question thus opened up; and, in concluding his address before that body, epitomizes the whole drift of his observations in these words: "I have now concluded. The science of therapeutics will be nearer the truth when our ignorance of the mode of action of remedies is more candidly confessed, when each drug is more specially studied, and when experimental research is more sedulously conducted."—*Edinburgh Med. Journ.*, Oct., 1860, from *Gazette des Hôpitaux,* May and June, 1860.

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8. *Thermo-Therapeia, or Heat Cure.* By ERASMUS WILSON.—For a knowledge of thermo-therapeia, medical science is indebted to Mr. Urquhart. Thermo-therapeia is the application of atmospheric air at a high temperature to the surface of the body, for the relief of pain and disease. I will endeavour to retrace my own experience, on my first introduction to the thermæ. It was the winter time, the season bitterly cold; my inception as a "companion of the bath," took place in the private thermæ of my esteemed friend, Mr. George Witt. As an example of simplicity of construction, Mr. Witt's thermæ may be usefully